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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/522,341

01/25/2005

Michael Kock

12810-00057

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7590

06/08/2009

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EXAMINER

ZHENG, LI

ART UNIT

PAPER NUMBER

1638

MAIL DATE

DELIVERY MODE

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/522,341	<b>Applicant(s)</b> KOCK ET AL.	
	<b>Examiner</b> LI ZHENG	<b>Art Unit</b> 1638	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 13 February 2009.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-34 is/are pending in the application.
- 4a) Of the above claim(s) 11-20 and 27-31 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3-10,21-26 and 32-34 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

1. Claims 1 and 3-34 are pending.

Claims 11-20 and 27-31 are withdrawn for being drawn to non-elected inventions.

Claims 1, 3-10, 21-26 and 32-34 are examined on the merits.

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. The objections and rejection not set forth in this office action are withdrawn.

### ***Claim Rejections - 35 USC § 103***

4. Claims 1, 3-10, 21-26 and 32-34 remain rejected under 35 U.S.C. 103(a) as being unpatentable over Maliga et al. (March 29, 2001, WO 01/21768) in view of Smith et al. (2000, *Nature*, 407:319-320) and Applicants' admitted prior art, for the reasons of record stated in the Office action mailed November 13, 2008. Applicants traverse in the paper filed February 13, 2009. Applicants' arguments have been fully considered but were not found fully persuasive.

Applicants argue that Maliga in view of Smith do not teach all the limitations. Applicants particularly pointed out that Maliga does not teach reduction of expression and Maliga does not teach or suggest introducing a gene of interest in combination with a dsRNA as required by the claims and that Smith does not remedy the deficiencies of Maliga (response, page 9, paragraphs 3-5).

The Office contends that the combined teachings do teach all the limitations set forth in the instant invention. A person with ordinary skill in the art would have known that complete reduction of expression as taught by Smith et al. would have the same the effect of “lacking coda expression” in the plant cells as taught by Maliga et al. Further, the instant claims do not recite introducing a gene of interest in combination with a dsRNA. Even if the instant claims recited such limitation, it would have been obvious for a person skilled in the art to introduce a gene of interest in combination with a selection marker, which is a purpose for plant transformation.

Applicants further argue that Maliga teaches away from the combination. Applicants particularly pointed out that Maliga requires deleting the marker gene which is against the any method that does not delete the marker gene (response, the paragraph bridging pages 11-12).

The Office contends that the motivation for combination of the prior art does not have to come from the prior art. It could come from the general knowledge of a person with ordinary skill in the art. Given the teaching of Maliga that a negative selection marker such as codA could be used for selecting plants that lack codA expression and the teaching of Smith et al. that hairpin construct could effectively silencing the gene, a

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person with ordinary skill in the art would fully expect that introducing the silencing construct of Smith targeting codA gene into the plant expressing codA gene in the genome of Maliga would allow a person with ordinary skill in the art to select for transformants that expressing codA silencing construct due to the lack of codA expression.

Applicants further argue that Maliga discloses "lacking codA" by deletion not "lacking codA expression" by silencing (response, page 12, 3<sup>rd</sup> paragraph).

The Office contend that "lacking codA" by deletion would achieve the same effect as "lacking codA expression" by completely silencing. Both result in that no protein encoded by codA is expressed.

### ***Summary***

No claim is allowed.

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

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extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Li Zheng whose telephone number is 571-272-8031.

The examiner can normally be reached on Monday through Friday 9:00 AM - 5:30 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anne Marie Grunberg can be reached on 571-272-0975. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/David H Kruse/  
Primary Examiner, Art Unit 1638  
3 June 2009